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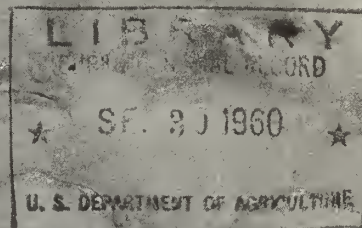
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HOW WILL
THEY
PERFORM?

egg production
viability
feed conversion
egg weight
egg quality

RANDOM SAMPLE

EGG PRODUCTION TESTS

958 - 59 COMBINED SUMMARY

INTRODUCTION

The random sample testing program has stimulated interest in breeding poultry for more efficient egg production. Poultrymen in general are interested in the results of these tests as a means of evaluating the performance of the various stocks entered.

Random sample tests are designed to compare a series of stocks under comparable conditions and thereby furnish unbiased information concerning their performance. However, it should be kept in mind that the environment at each test is somewhat different from that at other tests and that the quality of competition between stocks will vary from one test to another. Therefore, it is not advisable to make direct comparisons between entries in different tests.

All biological populations vary widely in the expression of any given character. Therefore, the reliability of information based upon a limited number of observations is subject to what is termed "sampling error" or chance deviations which may not be repeated in subsequent trials. For this reason results from a single random sample test, within one year, without statistical treatment, are not sufficiently conclusive for making reliable comparisons between competing stocks. Of much greater significance and predictive value is the test adjusted average performance of stocks entered in several random sample tests.

In estimating possible profits from stocks selected on the basis of their performance in random sample tests, the poultryman should keep in mind that only feed and chick costs are considered by the tests when calculating the reported figures on net income per bird. Also, local markets, labor costs, feed prices, management and other factors peculiar to the individual farm may have a more important bearing on net returns than the genetic potential of the stock.

As an added precaution the poultryman, in evaluating the potential worth of various poultry stocks, should take into consideration individual performance characters, such as viability, egg size and egg quality; they may relate to expected net income under his conditions.

In this Combined Summary of Random Sample Egg Production Test Results for 1958-59, an attempt is made to bring together all of the available performance data and treat it in a manner designed to make possible valid comparisons between stocks. Nevertheless, in comparing two stocks with equal or nearly equal regressed means, greater weight should be given to the stock entered in the most tests, particularly where one of the stocks was represented by only a single entry.

FOREWORD

This report on the combined statistical analysis of fifteen ^{1/} Random Sample Egg Production Tests for 1958-59 is divided into five sections: (1) a list of the Tests and Supervisors with their addresses, page 1; (2) the traits considered, the States for which data were not included, the range and repeatability of performance for each trait, pages 4 and 5; (3) a list of the 167 stocks in alphabetical order with assigned code numbers, State of origin, breeding, number of tests in which each stock was represented and the average performance by regressed means, for each of fifteen traits, pages 6 - 17; (4) a list of stocks with code number only, in descending rank order of regressed means for growing mortality, laying mortality, age at 50% production, hen-housed egg production and hen-day egg production, pages 18 - 23; income, feed conversion, average egg weight, body weight and albumen quality, pages 24 - 29; large blood spots, small blood spots, large meat spots, small meat spots, and shell thickness, pages 30 - 34; and (5) a list of all breeders who had stocks entered in these tests, with their addresses, pages 35 - 37.

Explanation of Terms and Abbreviations

- Stock: A term used to identify a specific breeding combination of chickens. These breeding combinations may include pure strains, strain crosses, breed crosses, or combinations thereof.
- Range: The range represents the difference between the maximum and minimum performance among the 167 stocks, based on the regressed means.
- Repeatability: This figure can vary from .00 to 1.00 and indicates the likelihood of stocks ranking in the same order from one test to another. If repeatability is low for a particular trait, little reliance can be placed upon the reported differences between stocks for that trait.

^{1/} California cage and floor treated as two tests.

WL	White Leghorn	AW	Austra White
BL	Brown Leghorn	WA	White Austra
BPR	Barred Plymouth Rock	Pure Str.	Pure Strain
WPR	White Plymouth Rock	Line X	Line Cross
RIR	Rhode Island Red	Str. X	Strain Cross
RIW	Rhode Island White	X Bred	Crossbred
NH	New Hampshire	INX	Inbred Cross
CG	California Gray	Syn.	Synthetic

Explanation of Listed Data

A total of 167 stocks were entered in the fifteen Random Sample Egg Production Tests for 1958-59. However, data were not available for all traits from all tests. Therefore, stocks which were entered only in those tests where some data were not reported were omitted in certain analyses and do not appear under those trait headings. In addition, certain consecutive stock code numbers are omitted under Section 3 because the code numbers were set up for a two year period and some will not be used until the 1959-60 data are available.

When some stocks are entered in at least two tests, estimates of repeatability of stocks between tests can be computed. In addition, when all tests have some stocks entered which are also entered in at least one other test, comparisons between tests within stocks can be made to determine real environmental or non-genetic differences between tests. Adjustment for these test differences can then be made so that differences among stock averages (over tests) will not include test environmental effects. Simple averages for stocks (over tests) include some location of test effects which tend to obscure the real genetic differences between stocks.

The rank of adjusted averages for stocks does not take into account the fact that some stocks (69) were entered in several tests while many others (98) were entered in only one test. If repeatability among tests was perfect (1.00) this would make no difference. However, since repeatability is considerably less than unity, in most cases, the regressed mean is preferred for ranking purposes. The regression of the adjusted mean considers the number of tests in which the stock is entered and the repeatability of the trait. If the adjusted average for a given stock is below the adjusted average for all stocks it will be regressed upward, whereas, if the adjusted average is above the adjusted average for all stocks it will be regressed downward. In each case the amount of regression depends on the number of tests in which that stock is entered, the repeatability and the deviation of the stock adjusted average from the overall average. For a detailed discussion of the statistical methods employed to compute the regressed means see the recent paper by Harvey. ^{1/}

Under Section 4, where the stocks are listed only by code number in descending rank order of regressed means and by trait, no attempt has been made to indicate where significant differences might exist. However, regression of the adjusted means takes into account the relative accuracy of the adjusted means thereby allowing direct comparisons among stocks to be made. Consideration of significance was omitted, because the adjusted averages for the 167 stocks were measured with widely different degrees of accuracy, depending upon the number of locations where each stock was represented by an entry and the accuracy of the adjustments required for test effects.

The regressed means provide the best estimates of performance based upon all available information from the fifteen Random Sample Egg Production Tests for 1958-59. For each individual stock and trait it takes into account the repeatability between tests, the number of tests entered, environmental or non-genetic differences between tests or location effects and the level of performance within each test in relation to the other stocks entered.

^{1/} Harvey, Walter R. Least-squares analysis of data with unequal subclass numbers. ARS 20-8. July, 1960. Agricultural Research Service. United States Department of Agriculture.

This publication is based upon recommendations of the National Committee on Random Sample Poultry Testing and the Council of American Official Poultry Tests. Information in the report was compiled by the Poultry Research Branch, Animal Husbandry Research Division, Agricultural Research Service, from original data supplied by the Supervisors of U. S. Official Random Sample Egg Laying Tests. The statistical analysis was made in cooperation with Biometrical Services, ARS.

- Arizona Random Sample Test
Ernest L. Parker, Arizona State University, Tempe
- California Official Random Sample Egg Laying Test
Emery A. Johnson, Route 3, Box 145, Modesto
- Florida Random Sample Test
A. W. O'Steen, Chipley
- Intermountain Random Sample Egg Laying Test
J. David Carson, Utah State University, Logan, Utah
- Iowa Multiple Unit Poultry Test
LeRoy Kruskop, Iowa Poultry Improvement Supervisory Board,
535 E. Lincolnway, Ames
- Minnesota Random Sample Test, Stillwater
Roy D. Carlson, State Office Building, St. Paul 1
- Missouri Official Random Sample Poultry Test
Marshall Mires, Mountain Grove
- New Jersey Random Sample Egg Laying Test
R. L. Squibb, Rutgers University, New Brunswick
- Central New York Official Random Sample Poultry Test, Horseheads
Dean R. Marble, Cornell University, Ithaca
- Western New York Official Random Sample Poultry Test, Stafford
Dean R. Marble, Cornell University, Ithaca
- Pennsylvania Random Sample Laying Test
Paul J. Turek, Route 2, Harrisburg
- Tennessee Random Sample Laying Test
O. E. Goff, University of Tennessee, Knoxville
- Texas Random Sample Egg Production Test
Bill H. Doran, Texas A & M College, College Station
- Wisconsin Random Sample Egg Production Test, Oregon
Arnold Guthrie, Department of Agriculture, State Capitol, Madison 2

<u>TRAIT</u>	<u>TESTS NOT INCLUDED</u>	<u>RANGE</u>		<u>REPEATABILITY</u>
		<u>Min.</u>	<u>Max.</u>	
Percent mortality to 150 days or subsequent age at housing	None	1. 83%	10. 56%	. 38
Number of eggs per pullet housed to 500 days of age.	None	153. 45 eggs	238. 03 eggs	. 40
Percent laying house mortality computed from 150 days or subsequent age at housing to 500 days of age.	None	4. 58%	26. 14%	. 39
Body weight at end of test	None	4. 00 lbs.	6. 28 lbs.	. 85

<u>TRAIT</u>	<u>TESTS NOT INCLUDED</u>	<u>RANGE</u>		<u>REPEATABILITY</u>
		<u>Min.</u>	<u>Max.</u>	
Days of age to 50% production calculated from the first day of the first two consecutive days of 50% production for living birds in the entry at that time.	Arizona	166.55 days	217.38 days	.62
Percent hen-day production from the time the birds reached 50% production to 500 days of age.	California-floor, California-cage, & Intermountain	40.70%	72.57%	.69
Pounds of feed per 24 ounces of egg produced, computed from a bulk weighing of eggs one day every two weeks or at least 2 days a month at equal intervals.	California-cage & Iowa	4.20 lbs.	9.29 lbs.	.79
Income over feed and chick cost per pullet housed, with chick cost in 1,000 lots at hatch date adjusted for mortality (accidental deaths, sexing errors and missing chicks not included).	California-cage, & Iowa	-\$0.80	\$3.08	.64
Average annual egg weight computed from bulk weighings at least every two weeks or two days a month at equal intervals.	Arizona, Intermountain & Pennsylvania	23.98 oz.	25.96 oz.	.66
Albumen quality-Haugh Units measured on one day's eggs per quarter or every three months, at equal intervals, broken-out basis.	Arizona, Intermountain & Pennsylvania	75.62%	84.14%	.69
Percentage of eggs with (one or more) large blood spots 1/8 inch or more, computed from at least 3 days eggs per quarter, broken-out basis.	Arizona, Florida, Intermountain, Iowa, Minnesota, Missouri, & Texas	0.39%	8.75%	.54
Percentage of eggs with (one or more) small blood spots less than 1/8 inch, computed from at least 3 days eggs per quarter, broken-out basis.	Arizona, Florida, Intermountain, Iowa, Minnesota, Missouri, & Texas	2.50%	5.31%	.21
Percentage of eggs with (one or more) large colored meat spots 1/8 inch or more, computed from at least 3 days eggs per quarter, broken-out basis.	Arizona, Florida, Intermountain, Iowa, Minnesota, Missouri, & Texas	0.00%	16.19%	.56
Percentage of eggs with (one or more) small colored meat spots less than 1/8 inch, computed from at least 3 days eggs per quarter, broken-out basis.	Arizona, Florida, Intermountain, Iowa, Minnesota, Missouri, & Texas	0.00%	27.21%	.89
Shell thickness by direct measurement to nearest 1/1000 inch from at least one breakout each quarter.	Arizona, Iowa, Intermountain, Missouri, Central N. Y., Western N. Y., & Pennsylvania	.0137 in.	.0142 in.	.25

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait

STOCK CODE	STOCK	STATE	BREEDING	STRAIN OR TRADENAME	TOTAL ENTRIES	% MORTALITY	
						GROWING	LAYING
1	A&M	Cal.	WL		2	4.51	12.13
2	All State	Minn.	WL Str. X	LX 300	2	3.41	13.99
221	Ames	Iowa	INX	Ames 313	1	4.71	13.20
4	Ames	Iowa	INX	Ames 415 B	3	5.81	11.73
5	Ames	Iowa	INX	Ames 424	6	4.34	12.34
6	Ames	Iowa	INX	Ames 434	1	3.35	13.76
8	Ames	Iowa	INX	Ames 505	1	4.04	12.39
9	Anthony	Pa.	WL Pure Str.		3	2.69	9.44
10	Anthony	Pa.	WL Str. X		1	4.50	13.33
11	Avery	Mass.	WR x RIR		1	4.59	17.02
222	Ayrest	Cal.	RIR		2	6.82	15.11
12	Babcock	N. Y.	WL Str. X	Babcock Barbara Ann	1	4.04	12.39
13	Babcock	N. Y.	WL Str. X	Babcock Bessie	16	3.92	10.90
14	Batcheller	Cal.	BPR x WL		2	4.51	17.79
15	Bagby	Mo.	WL Pure Str.	One Grade	1	3.96	12.39
16	Bagby	Mo.	RIR Pure Str.	Production Red	1	4.61	13.16
17	Ball	N. Y.	WL Str. X	551	3	4.60	12.32
19	Beamsdale	N. C.	WL Str. X	.	1	4.04	12.39
21	Bloemendaal	Iowa	WL Str. X		2	4.56	13.36
22	Booth	Mo.	INX	Booth Line 351	5	4.80	12.35
23	Booth	Mo.	WL Pure Str.	Booth White Leghorn	1	7.16	14.70
24	Brender	N. Y.	WL Str. X	1234	7	3.39	10.13
25	Bulkley	N. Y.	WL Str. X		3	2.45	10.99
26	Bundeson Bros.	Cal.	CG x WL	Graycie	2	3.74	14.44
27	Burr	Pa.	WL Line X	LC 89	1	5.80	14.70
29	Cameron	Pa.	WL Str. X	DMX	1	3.37	11.61
30	Carey	Ohio	WL Str. X	Carey Nicks	6	3.27	10.34
31	Cashman	Ky.	WL Str. X	Hi-Cash	2	3.38	10.88
32	Childers	Cal.	CG x WL		2	4.51	12.16

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait

AGE AT 50% PRODUC- TION (Days)	EGG PRODUCTION		INCOME OVER FEED AND CHICK COSTS (\$)	FEED CON- VER- SION (lbs)	AVERAGE EGG WEIGHT (oz)	BODY WEIGHT (lbs)	ALBUMEN QUALITY (Haugh units)	% BLOOD SPOTS		% MEAT SPOTS		SHELL THICK- NESS (Inch)	STOCK CODE
	HEN HOUSED (No.)	HEN DAY (%)						1/8 INCH OR MORE	LESS THAN 1/8 INCH	1/8 INCH OR MORE	LESS THAN 1/8 INCH		
171.12	212.10		2.42	4.62	24.81	4.50	79.72	2.74	4.16	0.20	1.23	.0140	1
179.10	207.37	65.90	2.18	4.88	24.80	4.04	81.63	2.05	3.30	1.67	2.38	.0140	2
174.44	211.18		2.09	4.86		5.02							221
176.20	220.24	64.90	2.26	4.67	24.86	4.79	78.81	2.45	3.54	0.25	1.49	.0140	4
176.79	201.96	65.59	1.97	4.94	25.01	4.74	79.14	1.42	3.15	1.94	3.18	.0141	5
174.96	209.32	65.76	2.05	4.76	25.00	5.04	78.00					.0139	6
174.95	210.11	63.52	2.08	5.06	24.44	5.77	80.45						8
178.67	203.95	64.07	2.05	4.91	25.01	4.76	81.09	2.12	3.01	1.58	1.76		9
174.54	206.00	64.71	2.09	4.92	24.94	4.88	83.20	2.07	2.85	2.13	0.84	.0138	10
178.02	197.12	64.99	1.54	5.56		6.26		0.93	3.75	3.98	18.06		11
184.45	190.69		1.80	5.37	24.73	5.37	81.02	1.52	3.38	16.19	20.75	.0137	222
173.11	216.37	68.83	2.55	4.49	24.84	4.67	80.45						12
179.90	213.04	68.20	2.51	4.60	25.28	4.39	80.87	3.50	3.29	1.54	1.63	.0141	13
171.88	199.02		1.96	5.03	24.73	5.69	79.64	0.99	3.55	3.97	7.34	.0138	14
174.95	212.20	67.03	2.60	4.40	24.18	4.41	83.28						15
173.72	207.87	64.27	2.31	5.02	24.97	6.11	80.11						16
176.91	215.29	69.94	2.74	4.50	25.24	4.29	82.18	2.32	4.07	2.82	1.80		17
174.34	215.17	67.93	2.62	4.45	25.17	4.33	82.45						19
179.74	223.11	68.25	2.48	4.75	25.42	4.50	79.85	2.62	3.71	1.70	1.76	.0141	21
172.61	212.88	67.44	2.37	4.70	24.69	4.35	83.89	2.59	4.11	0.62	1.78	.0138	22
172.49	206.62	64.83	2.21	4.75	24.31	4.67	82.66						23
176.23	209.67	66.86	2.48	4.69	25.64	4.37	80.53	3.63	3.29	1.38	1.98	.0141	24
178.29	206.65	65.50	2.08	4.64	25.16	4.41	82.34	2.50	4.06	1.85	0.00		25
168.46	214.22		2.49	4.73	25.76	5.33	79.39	2.57	3.72	0.20	1.23	.0137	26
176.79	208.55	66.72	2.24	4.85		4.39		8.75	3.52	2.02	1.37		27
178.02	214.40	69.68	2.65	4.69		4.64		2.87	3.31	2.58	3.14		29
173.44	213.74	68.02	2.53	4.54	24.67	4.56	82.49	1.79	2.68	1.11	2.19	.0141	30
174.53	224.16	71.56	2.72	4.45	24.30	4.57	79.37	3.13	3.60	2.01	2.02	.0139	31
169.22	212.39		2.55	4.69	24.89	5.23	79.19	2.57	3.72	0.38	1.47	.0138	32

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait, (Cont'd.)

STOCK CODE	STOCK	STATE	BREEDING	STRAIN OR TRADENAME	TOTAL ENTRIES	% MORTALITY	
						GROWING	LAYING
34	Colonial	Mo.	WL Pure Str.	Best Egg Grade	2	4.70	10.48
35	Colonial	Mo.	INX	True Line 365	10	5.56	11.45
36	Colonial	Mo.	WL Str. X		1	3.43	13.66
37	Cornell	N. Y.	WL Pure Str.	Random Breds	9	4.42	11.58
38	Creighton	Ind.	WL Str. X	CB	6	6.74	19.29
39	Creighton	Ind.	WL Str. X	511	3	4.11	10.78
40	Crooks	Mass.	RIR Str. X		1	6.41	20.11
41	Cunningham	Pa.	WL Pure Str.	Group 458	1	3.98	12.39
42	Darby	N. J.	WL Str. X	Darby DX	5	5.51	12.55
43	Darby	N. J.	WL Pure Str.	Darby Pure	6	5.26	14.43
44	DeKalb	Ill.	INX	DeKalb	1	3.06	13.18
45	DeKalb	Ill.	INX	DeKalb 101	11	2.74	11.56
46	DeKalb	Ill.	INX	DeKalb 111	2	6.24	13.92
47	DeKalb	Ill.	INX	DeKalb 121	2	3.53	12.24
48	DeKalb	Ill.	INX	DeKalb 131	4	3.09	14.29
49	Del Rio	Ariz.	RIR	A	1	5.34	15.96
51	Demler	Cal.	WL Str. X		4	4.69	9.69
52	Demler	Cal.	Syn x WL	Demler Kross	2	3.74	12.13
53	Douglaston	N. Y.	RIR Pure Str.	Commercial	1	3.64	10.50
54	Drake	N. J.	WL Pure Str.	Commercial	1	5.86	12.56
55	Eby	Tex.	WL Str. X	Grade 1	2	4.37	10.14
56	Edmonds	Minn.	INX	X Cross 100	1	1.83	15.31
58	Eelman	N. J.	WL Pure Str.		1	3.74	10.24
61	Ford	N. Y.	WL Str. X	Ford V88	3	2.83	8.38
64	Frost	Minn.	WL Str. X	Frost Line	1	5.17	11.45
65	Garber	Cal.	CG x WL		2	3.74	14.86
68	Garber	Cal.	WL Str. X	G300A	2	5.28	13.00
70	Gasson	Ohio	WL Str. X	G 33	1	5.26	13.16
71	Ghostley	Minn.	WL Str. X	2 Way	8	3.71	11.76

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait, (Cont'd.)

AGE AT 50% PRODUC- TION (Days)	EGG PRODUCTION		INCOME OVER FEED AND CHICK COSTS (\$)	FEED CON- VER- SION (lbs)	AVERAGE EGG WEIGHT (oz)	BODY WEIGHT (lbs)	ALBUMEN QUALITY (Haugh units)	% BLOOD SPOTS		% MEAT SPOTS		SHELL THICK- NESS (Inch)	STOCK CODE
	HEN HOUSED (No.)	HEN DAY (%)						1/8 INCH OR MORE	LESS THAN 1/8 INCH	1/8 INCH OR MORE	LESS THAN 1/8 INCH		
173.50	205.37	63.10	2.03	5.00	24.19	4.57	80.03						34
175.37	212.53	67.38	2.45	4.57	24.97	4.28	83.38	2.84	4.69	0.78	2.12	.0139	35
176.41	193.04	65.44	2.17	4.68	24.29	4.81	82.56					.0141	36
174.30	213.97	67.11	2.25	4.73	24.10	4.55	79.91	2.87	4.04	2.13	3.11	.0139	37
174.94	208.28	67.27	2.16	4.73	24.53	4.70	81.51	4.79	3.30	1.02	0.09	.0140	38
173.57	214.30	68.22	2.53	4.55	24.99	4.57	81.75	2.12	3.33	2.46	2.08	.0140	39
181.71	191.86	62.02	1.44	5.56		5.75		4.87	5.02	2.02	11.76		40
174.94	212.52	67.61	2.47	4.53		4.47		4.01	4.11	2.02	1.37		41
181.28	217.26	67.57	2.43	4.74	25.43	4.46	81.51	3.74	3.51	1.33	1.12	.0141	42
180.11	205.03	62.91	1.92	5.07	24.11	4.63	80.00	3.21	3.88	0.95	1.34	.0140	43
	215.66	67.83	2.38	4.64		5.01							44
171.45	213.68	66.40	2.37	4.49	25.20	4.67	81.06	2.96	3.46	0.79	1.63	.0139	45
172.89	213.60	63.19	1.93	4.82	24.86	4.55	80.87	2.89	3.29	1.98	1.31	.0139	46
177.17	204.30	64.64	2.14	4.59	25.32	4.71	79.56	1.04	2.55	2.02	2.25	.0140	47
172.66	206.54	67.35	2.35	4.51	25.00	4.46	82.26	2.70	3.05	1.72	4.46	.0139	48
	204.39	65.35	1.87	5.22		5.86							49
175.59	215.73	71.35	2.60	4.62	25.08	4.26	82.82	2.57	4.25	0.20	1.23	.0140	51
166.93	220.80		2.70	4.58	24.97	5.05	78.45	1.69	3.11	0.38	1.47	.0139	52
177.80	199.10	60.16	1.94	5.33	24.64	5.85	81.88	4.35	4.10	4.05	19.82		53
177.62	202.95	64.37	2.12	4.80	25.14	4.88	80.79	4.44	3.78	4.54	0.84	.0140	54
172.12	203.28	66.65	2.50	4.68	25.25	4.32	82.70					.0140	55
174.35	207.72	65.83	2.16	4.83	24.67	5.29	79.17					.0141	56
185.61	213.49	69.40	2.59	4.54	25.20	4.20	83.69	2.77	4.75	1.79	1.73	.0139	58
175.53	221.94	70.43	2.65	4.60	24.73	4.92	79.94	3.23	4.79	1.58	4.23		61
181.73	210.77	67.90	2.35	4.76	25.20	4.61	80.90					.0140	64
171.12	207.69		2.23	4.74	24.61	5.10	78.57	2.04	3.46	0.38	1.23	.0139	65
171.12	217.59		2.48	4.57	24.97	4.41	83.64	2.04	3.29	0.20	1.23	.0139	68
173.11	208.31	65.31	2.28	4.59	23.98	4.24	82.39						70
176.84	211.65	69.18	2.47	4.69	24.90	4.72	82.92	2.89	3.74	0.00	1.70	.0141	71

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait (Cont'd.)

STOCK CODE	STOCK	STATE	BREEDING	STRAIN OR TRADENAME	TOTAL ENTRIES	% MORTALITY	
						GROWING	LAYING
72	Ghostley	Minn.	WL Str. X	Ghostley Pearl (3 way)	4	3.29	16.34
73	Gibson	Mo.	RIR Pure Str.		1	9.78	18.56
74	Graybill	Pa.	WL Pure Str.	Graybill's Strain	1	5.20	16.25
77	Greider	Pa.	WL Str. X	Super Cross	1	4.59	10.84
78	Hall Bros.	Conn.	WL Str. X	Commercial	3	5.07	11.23
81	Hansen, H.	Wash.	WL Str. X	Criss Cross 60	5	4.17	14.15
82	Hansen, H.	Wash.	WL Str. X	Criss Cross 61	4	3.13	11.24
83	Hansen, P.	Cal.	AW X Bred	One Grade	2	4.51	9.43
84	Hanson, J. A.	Ore.	WL Str. X	Super Nick	3	5.47	13.22
85	Harco	Mass.	RIR Pure Str.	Flock Mating	2	6.60	13.02
87	Harper	N. J.	WL Str. X	Harper Huskie	2	5.16	7.57
88	Heisdorf & Nelson	Wash.	WL Str. X	H & N Nick Chick	17	3.14	7.34
90	Hobart	N. Y.	WL Pure Str.		2	6.73	10.84
91	Hogsett	Cal.	CG x WL		2	3.74	14.44
92	Honegger	Ill.	WL Str. X	Honegger Layer	14	3.57	10.82
94	Hoover	Ind.	WL Str. X	H 339	1	4.62	11.69
95	Hubbard	N. H.	RIR x NH	H 496	5	7.93	15.45
97	Hy-Line	Iowa	INX	Hy-Line 934 A	3	3.28	9.96
98	Hy-Line	Iowa	INX	Hy-Line 934 B	2	4.11	8.37
99	Hy-Line	Iowa	INX	Hy-Line 934 C	13	2.26	4.58
100	Hy-Line	Iowa	INX	Hy-Line 968	3	5.28	12.85
101	Ideal	Tex.	WL Str. X	H-3-W	10	2.97	9.27
102	Indianhead	N. J.	WL Str. X		1	5.83	13.33
104	Indiana Farm Bureau	Ind.	WL Str. X	10-42	2	3.85	12.83
105	Indiana Farm Bureau	Ind.	WL Str. X	LX 400	1	5.37	13.93
106	Jacobs	N. Y.	WL Str. X	Commercial	1	4.21	11.28
107	Kahn	N. J.	WL Str. X	Commercial	1	3.74	13.33

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait(Cont'd.)

AGE AT 50% PRODUC- TION (Days)	EGG PRODUCTION		INCOME OVER FEED AND CHICK COSTS (\$)	FEED CON- VER- SION (lbs)	AVERAGE EGG WEIGHT (oz)	BODY WEIGHT (lbs)	ALBUMEN QUALITY (Haugh units)	% BLOOD SPOTS		% MEAT SPOTS		SHELL THICK- NESS (Inch)	STOCK CODE
	HEN HOUSED (No.)	HEN DAY (%)						1/8 INCH OR MORE	LESS THAN 1/8 INCH	1/8 INCH OR MORE	LESS THAN 1/8 INCH		
175.23	220.27	70.00	2.41	4.55	24.83	4.60	81.84	2.84	3.53	1.56	1.56	.0138	72
180.49	188.62	58.20	1.78	4.31	24.64	5.43	81.83						73
179.25	200.41	63.06	1.91	4.69		5.07		2.98	2.99	2.52	2.17		74
179.25	215.60	69.34	2.88	4.45		4.47		2.12	3.39	2.02	2.79		77
172.57	211.04	69.36	2.64	4.49	24.97	4.54	83.83	2.61	3.60	2.22	2.03	.0138	78
175.71	212.30	66.40	2.25	4.75	25.15	4.54	81.69	2.66	5.15	1.89	0.92	.0138	81
175.17	212.63	68.59	2.48	4.47	25.40	4.52	82.06	3.00	4.08	0.80	1.40	.0138	82
170.74	217.85		2.66	4.77	25.32	5.28	78.13	2.22	3.11	3.25	5.46	.0141	83
171.13	212.86	67.86	2.32	4.59	24.29	4.58	81.98	2.74	3.72	0.38	1.47	.0139	84
179.07	205.21	65.54	2.10	5.08	25.96	5.88	80.98	1.59	4.17	5.77	16.28		85
181.10	209.85	64.81	2.36	4.72	25.24	4.35	80.95	1.63	3.38	0.74	0.86	.0141	87
169.04	227.11	70.93	2.71	4.40	24.15	4.41	83.24	2.51	3.73	0.91	1.06	.0138	88
172.64	205.86	66.34	1.98	4.93	24.21	4.50	83.77	2.24	3.62	0.73	0.72		90
173.03	210.78		2.27	4.78	25.16	5.19	79.23	1.52	3.46	0.38	1.94	.0138	91
178.98	214.07	68.89	2.65	4.42	25.02	4.35	82.27	3.48	3.17	1.22	1.45	.0141	92
178.09	219.45	70.96	2.30	4.74	24.03	4.64	82.05	1.93	3.36	4.18	1.46		94
169.77	204.00	66.43	2.15	5.26	25.07	6.28	81.80	0.42	3.96	12.24	21.74	.0138	95
171.82	231.17	71.27	2.84	4.27	25.26	4.18	78.26	2.80	3.60	1.21	1.19	.0140	97
174.86	238.03	70.49	2.92	4.24	25.30	4.10	79.88	2.35	3.19	0.86	0.87	.0139	98
175.22	229.81	72.57	3.08	4.23	25.49	4.12	76.67	2.37	2.51	0.80	0.48	.0138	99
170.04	226.68	71.08	2.70	4.20	24.04	4.20	75.62					.0139	100
174.72	216.30	70.29	2.78	4.42	25.18	4.37	81.62	4.54	4.20	0.86	0.93	.0141	101
177.62	219.63	71.89	2.91	4.31	25.73	4.54	82.38	3.69	2.85	1.23	2.27	.0139	102
177.95	204.76	62.21	2.07	4.90	25.10	4.48	80.76	2.97	3.68	1.67	1.75	.0141	104
176.18	207.03	65.45	2.32	4.71	25.17	4.41	80.66						105
176.57	211.25	68.10	2.35	4.70	24.64	4.57	82.85	2.19	3.68	2.93	0.00		106
176.39	215.14	69.68	2.48	4.58	24.94	4.80	79.55	2.82	4.01	1.23	0.84	.0140	107

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait, (Cont'd)

STOCK CODE	STOCK	STATE	BREEDING	STRAIN OR TRADENAME	TOTAL ENTRIES	% MORTALITY	
						GROWING	LAYING
109	Keystone	Pa.	WL Str. X	Keystone Leghorns	2	3.15	11.09
110	Kimber	Cal.	WL Str. X	K 137	16	2.99	7.57
111	Kimber	Cal.	WL Str. X	K 141	2	3.74	11.35
113	Kruger	Cal.	WL		2	4.51	12.25
114	Lakewood	N. J.	WL Str. X		1	8.07	12.14
115	Lasher	Cal.	WL	Commercial	2	3.74	13.67
116	Lawton, A. C.	Mass.	WPR Pure Str.	Cert. Candidate	3	6.32	11.90
118	Leader	Pa.	WL Str. X	10 X	1	3.37	10.07
119	Lee	Ohio	WPR Str. X	301	1	9.45	14.82
120	Leonard	Iowa	X Bred	Lenco 404	1	5.94	13.93
123	Lux	Iowa	WL Str. X	Luxury Liner	4	5.49	13.08
125	Marti	Mo.	WL Str. X		1	3.43	17.15
126	Mathews	Wisc.	WL Str. X	M 138	1	6.24	12.52
127	McDonald, Ray	Tex.	WL Str. X		1	4.27	12.03
129	McDonald, Roy	Tex.	WL Pure Str.		1	4.68	8.83
130	McKeen	Cal.	WL	260	2	3.74	12.52
131	Meadow View	Wisc.	WL Pure Str.		1	4.45	9.43
134	Midwest	Mo.	WL Pure Str.	Best Egg Grade	1	2.71	10.84
135	Midwest	Mo.	RIR Pure Str.	Production Red	1	5.26	13.16
136	Missouri Valley	Mo.	WL Pure Str.	Best Egg Contest	1	4.65	12.39
137	Missouri Valley	Mo.	X Bred	Ski Line Layers	1	5.94	12.39
138	Mt. Hope	N. Y.	WL Str. X	Mt. Hope Queen	10	4.37	12.72
139	Niles	Cal.	WL	Niles	2	3.74	11.72
140	Niles	Cal.	CG x WL		2	4.51	11.83
141	Nimton	N. J.	WL Str. X		2	2.54	10.60
142	Norco	Cal.	WL	Grade A	2	3.74	7.46
143	Norris	Pa.	WL Pure Str.	Efficiency Leghorns	2	4.34	10.79
144	Oster	N. J.	WL Str. X		2	3.41	9.54
145	Ottawa	Canada	WL Pure Str.	Random Bred Controls	2	7.61	18.64

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait (Cont'd)

AGE AT 50% PRODUC- TION (Days)	EGG PRODUCTION		INCOME OVER FEED AND CHICK COSTS (\$)	FEED CON- VER- SION (lbs)	AVERAGE EGG WEIGHT (oz)	BODY WEIGHT (lbs)	ALBUMEN QUALITY (Haugh units)	% BLOOD SPOTS		% MEAT SPOTS		SHELL THICK- NESS (Inch)	STOCK CODE
	HEN HOUSED (No.)	HEN DAY (%)						1/8 INCH OR MORE	LESS THAN 1/8 INCH	1/8 INCH OR MORE	LESS THAN 1/8 INCH		
171.25	214.86	67.65	2.73	4.61	25.35	4.59	80.74	4.71	3.92	1.55	2.09		109
171.16	219.18	68.59	2.72	4.53	25.65	4.53	83.79	2.39	3.86	0.78	0.78	.0141	110
169.60	214.07		2.49	4.48	24.45	4.27	80.33	2.74	3.46	0.20	1.23	.0142	111
173.03	211.47		2.44	4.72	25.12	4.73	80.78	3.09	3.64	0.38	1.70	.0139	113
181.31	201.82	63.81	2.15	4.88	25.20	4.80	81.55	4.12	4.46	1.23	4.22	.0141	114
174.55	217.22		2.83	4.41	25.20	4.22	83.88	1.87	3.55	0.20	1.23	.0140	115
181.23	196.25	65.06	2.16	5.13	24.52	5.61	81.07	0.56	2.63	15.50	15.67	.0140	116
177.40	220.01	70.92	3.05	4.37		4.56		2.77	3.67	2.02	1.37		118
178.63	195.03	59.19	1.35	5.96		6.09		0.39	4.26	2.63	27.21		119
170.65	210.11	65.59	2.32	4.85	25.10	4.84	78.73						120
175.81	220.04	68.36	2.32	4.70	24.85	4.76	80.09	2.34	3.56	1.74	1.74	.0139	123
177.03	222.01	68.21	2.14	4.77	24.45	4.81	80.29	2.62	3.82	1.70	3.09	.0140	125
174.57	233.12	68.83	2.73	4.44	25.57	4.72	79.67	2.89	3.50	1.14	0.87	.0140	126
181.33	192.75	63.37	2.18	5.03	25.35	4.46	77.87					.0139	127
184.41	192.55	65.58	2.48	4.71	25.48	4.12	83.32					.0139	129
171.50	209.78		2.34	4.80	24.49	4.82	82.45	2.04	3.29	0.20	1.47	.0140	130
171.50	236.01	67.66	2.80	4.43	25.11	4.38	81.60	2.35	4.45	1.42	1.76	.0140	131
172.49	214.44	66.90	2.67	4.57	25.89	4.50	83.28						134
178.03	204.02	63.38	2.22	5.10	24.84	6.11	79.56						135
172.49	209.43	66.00	2.45	4.67	25.63	4.50	82.18						136
174.34	210.31	66.21	2.40	4.80	25.23	4.50	82.87						137
178.33	216.06	70.07	2.62	4.48	24.99	4.27	82.32	2.88	3.43	1.06	1.40	.0141	138
170.74	212.81		2.31	4.61	25.12	4.55	81.68	1.87	3.81	0.20	1.23	.0140	139
166.55	220.06		2.39	4.69	25.48	5.37	78.86	2.04	3.64	0.20	1.70	.0138	140
175.52	222.26	71.38	2.87	4.38	25.07	4.53	80.31	1.69	3.80	1.49	2.99	.0139	141
179.88	218.02		2.73	4.54	25.28	4.59	83.84	2.57	3.55	0.20	1.23	.0140	142
185.92	208.70	64.81	2.40	4.55	25.10	4.00	83.81	2.22	3.44	1.14	0.67		143
172.52	218.42	68.91	2.44	4.75	24.87	4.35	81.62	2.16	2.59	1.19	2.43	.0139	144
179.88	185.77	57.44	1.24	5.15	24.41	4.41	83.16	2.24	3.97	0.37	0.00		145

STOCK CODE	STOCK	STATE	BREEDING	STRAIN OR TRADENAME	TOTAL ENTRIES	% MORTALITY	
						GROWING	LAYING
146	Parks	N. Y.	WL Pure Str.		2	6.21	14.74
147	Parks	Pa.	BPR Pure Str.		1	8.24	15.47
148	Parmalee	Conn.	BPR Pure Str.	Certified	1	5.50	17.45
149	Parmenter	Mass.	RIR Pure Str.	Certified	2	5.63	11.35
150	Peerless	Iowa	WL Str. X	Commercial	1	2.71	10.84
152	Pennsylvania Farm Bureau	Pa.	WL Str. X	LSC 55	2	2.91	9.68
153	Petaluma Coop	Cal.	WL	Commercial	2	3.74	12.50
155	Pineland	S. C.	RIR Pure Str.		1	8.24	20.88
156	Pollard	Cal.	BL x WL		2	3.74	18.71
159	Randall	Cal.	CG x WL		2	4.51	12.55
160	Rapp	N. J.	WL Str. X	Rapp Line Cross	7	4.69	9.97
162	Reuter	N. Y.	WL Str. X		2	4.22	12.51
163	Richardson	Cal.	WL	Commercial	2	3.74	15.36
223	Richardson	Cal.	WA X Bred	One Grade	2	3.74	13.72
166	Rittenhouse	Cal.	RIR x WL		2	3.74	13.00
167	Robinson	Minn.	WL Pure Str.		1	5.17	17.62
168	Ruckers (Imperial)	Iowa	WL Str. X		1	5.98	13.66
169	Ruckers (Imperial)	Iowa	INX	GW 389	2	3.83	9.72
170	Ruckers (Imperial)	Iowa	INX	GW 389 A	1	4.00	12.39
172	Sales & Bourke	Cal.	CG x WL		2	4.51	11.77
174	Sand Hill	N. Y.	WL Str. X		2	4.20	8.61
175	Schaible	N. J.	WL Str. X	Commercial	4	6.22	7.12
177	Schildmeyer	Cal.	WL	Commercial	2	6.05	14.14
178	Schildmeyer	Cal.	CG x WL	Commercial	2	4.51	14.89
180	Schuyler	N. Y.	WL Str. X	Egg Champs	2	5.80	9.79
181	Shaver	Can.	WL Str. X	Starcross 288	5	3.39	13.63
182	Shenango Valley	Pa.	WL Str. X	Hamblin X	1	4.59	10.84

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait,(Cont'd.)

AGE AT 50% PRODUC- TION (Days)	EGG PRODUCTION		INCOME OVER FEED AND CHICK COSTS (\$)	FEED CON- VER- SION (lbs)	AVERAGE EGG WEIGHT (oz)	BODY WEIGHT (lbs)	ALBUMEN QUALITY (Haugh units)	% BLOOD SPOTS		% MEAT SPOTS		SHELL THICK- NESS (Inch)	STOCK CODE
	HEN HOUSED (No.)	HEN DAY (%)						1/8 INCH OR MORE	LESS THAN 1/8 INCH	1/8 INCH OR MORE	LESS THAN 1/8 INCH		
174.93	197.25	61.81	1.74	5.14	24.69	4.69	82.67	2.59	3.44	0.37	0.72		146
186.63	185.93	57.47	0.95	6.12		5.67		5.03	5.31	4.71	15.75		147
192.56	196.62	61.20	1.81	5.28	25.30	6.19	80.64	2.73	3.47	3.49	11.82		148
178.31	202.60	63.91	2.10	5.16	24.90	6.02	83.74	0.89	3.58	6.10	19.81		149
170.65	224.63	71.66	2.69	4.41	24.24	4.92	80.45						150
178.69	210.96	66.16	2.51	4.55	24.90	4.36	83.88	1.80	3.42	1.50	0.15		152
180.64	214.30		2.60	4.50	25.20	4.45	83.23	3.97	4.16	0.20	1.23	.0141	153
217.38	153.45	40.70	-0.80	9.29		5.58		1.69	3.88	4.43	13.00		155
171.88	184.97		1.79	5.03	24.89	4.41	81.43	5.02	4.42	1.28	1.94	.0142	156
167.69	220.60		2.67	4.52	25.44	5.10	80.98	2.04	3.38	0.20	1.47	.0138	159
175.68	229.27	70.52	2.82	4.42	24.86	4.29	80.20	2.83	4.07	1.93	2.27	.0141	160
170.36	206.20	65.44	2.06	4.77	24.57	4.73	80.10	2.59	3.79	0.37	1.19		162
176.87	211.57		2.28	4.80	24.25	5.05	79.56	3.26	4.56	0.20	1.47	.0141	163
172.26	225.50		2.45	4.65	24.41	5.42	78.41	1.69	3.55	2.59	4.49	.0142	223
168.84	213.22		2.50	4.72	25.36	5.28	80.57	1.87	3.11	7.75	7.81	.0140	166
185.42	196.93	62.24	1.66	5.31	24.01	5.12	83.24					.0138	167
175.80	188.10	62.06	1.89	4.87	24.09	4.63	79.80					.0138	168
172.78	217.10	67.84	2.27	4.47	24.05	4.65	75.99	3.54	3.36	3.62	0.57		169
170.65	213.00	66.69	2.42	4.40	24.38	4.75	77.00						170
167.69	218.14		2.48	4.63	25.01	5.19	79.47	1.69	3.90	0.56	1.70	.0138	172
177.59	206.72	63.73	2.28	4.80	25.20	4.32	84.14	2.59	3.10	1.09	0.72		174
176.90	217.80	68.26	2.68	4.65	25.65	4.51	82.54	3.53	3.12	2.37	1.69	.0141	175
174.93	209.55		2.39	4.86	24.97	4.41	80.21	3.62	4.25	0.38	1.70	.0140	177
174.17	198.82		2.00	5.00	24.61	4.91	78.74	1.52	3.29	0.56	1.23	.0139	178
178.31	215.39	68.07	2.43	4.74	24.64	4.69	78.85	3.31	4.05	3.22	2.50		180
174.03	222.79	70.39	2.61	4.42	25.53	4.57	81.38	3.48	3.47	1.14	1.71	.0140	181
174.94	217.97	70.07	2.96	4.37		4.22		0.88	3.10	2.02	1.37		182

All Stocks Entered, in Alphabetical Sequence with Regressed Means for each Trait, (Cont'd.)

STOCK CODE	STOCK	STATE	BREEDING	STRAIN OR TRADENAME	TOTAL ENTRIES	% MORTALITY	
						GROWING	LAYING
184	Spruce	N. J.	WL Str. X	S-3	2	2.89	10.65
185	Stafford	N. Y.	WL Pure Str.	Commercial	1	10.37	25.37
186	Stever	Pa.	WL Str. X	300	1	3.98	10.84
189	Stone	Cal.	WL Str. X		3	2.83	9.95
191	Stone	Minn.	WL Pure Str.	ROP Candidate	1	4.23	24.21
193	Street Way	Minn.	WL Pure Str.		1	5.48	16.08
194	Struthoff	N. J.	WL Str. X		1	4.42	14.10
195	Sunnyside	Wisc.	WL Str. X	Line Cross 404	1	5.33	10.97
196	Sunnyside	Wisc.	CG x WL	Wisco White	1	5.06	10.20
197	Swift	Ill.	WL Str. X	Ski Hi 316	3	3.44	13.84
198	Tobin-Galyean	Cal.	WL		2	4.51	14.89
199	Townline	Mich.	WL Str. X	SC 30	2	3.64	11.59
200	Truway	Pa.	WL Pure Str.	Truway	2	4.03	14.43
204	Vancrest	N. Y.	NH Pure Str.	Regular Mating	1	5.50	10.50
205	Vilas	Cal.	WL		2	3.74	10.57
206	Voscinar	Fla.	WL	Foreman	1	6.93	26.14
207	Warren, J. J.	Mass.	RIR		1	3.77	17.19
208	Warren, J. J.	Mass.	RIR x RIW	Sex-Sal-Links	3	4.27	13.68
210	Webster	N. Y.	RIR Pure Str.	Certified	1	5.58	13.59
212	Welp	Iowa	WL Str. X	901	1	4.66	11.98
213	Westline	Wash.	WL Str. X	702	6	4.16	10.56
214	Wheelock	Pa.	WL Str. X		1	2.76	10.84
215	Willowdale	N. Y.	WL Str. X		1	10.56	10.77
217	Wirtz	N. J.	WL Line X	Top Line	1	3.98	10.84
218	Wirtz	N. J.	WL Str. X		2	2.42	10.65
219	Wood	Cal.	AW	Commercial	2	4.51	8.63
220	Woodward	N. J.	WL Str. X		1	4.46	14.10

All Stocks Entered, in Alphabetical Sequence, with Regressed Means for each Trait, (Cont'd.)

AGE AT 50% PRODUC- TION (Days)	EGG PRODUCTION		INCOME OVER FEED AND CHICK COSTS (\$)	FEED CON- VER- SION (lbs)	AVERAGE EGG WEIGHT (oz)	BODY WEIGHT (lbs)	ALBUMEN QUALITY (Haugh units)	% BLOOD SPOTS		% MEAT SPOTS		SHELL THICK- NESS (Inch)	STOCK CODE
	HEN HOUSED (No.)	HEN DAY (%)						1/8 INCH OR MORE	LESS THAN 1/8 INCH	1/8 INCH OR MORE	LESS THAN 1/8 INCH		
177.47	214.64	68.38	2.56	4.59	25.03	4.62	80.07	3.07	4.00	2.95	1.63	.0139	184
184.57	177.45	58.64	1.02	5.51	24.37	4.74	81.81	1.65	3.47	2.54	0.00		185
176.79	210.55	65.75	2.38	4.61		4.13		1.90	3.58	2.02	1.37		186
171.41	217.01	63.55	2.34	4.70	24.85	4.46	81.49	3.44	4.16	0.20	1.23	.0141	189
177.65	202.73	65.66	1.45	5.32	24.38	4.72	80.64	2.35	3.82	1.14	0.87	.0139	191
178.65	202.35	65.55	2.09	4.99	25.00	4.78	80.07					.0139	193
175.16	209.20	65.81	2.23	4.93	25.01	4.71	80.44	2.07	3.45	1.23	0.84	.0141	194
177.03	232.72	66.76	2.69	4.49	25.30	4.38	79.67	2.35	4.14	0.86	1.76	.0140	195
173.96	237.65	70.35	2.88	4.45	24.84	5.32	77.53	2.62	4.03	1.42	2.20	.0137	196
175.73	222.06	70.26	2.57	4.44	24.86	4.51	79.76	3.89	3.39	1.67	2.64	.0139	197
176.07	200.02		1.88	4.84	24.17	4.50	79.84	3.44	3.46	0.20	1.47	.0139	198
178.06	218.07	69.04	2.71	4.49	24.90	4.51	80.87	2.60	3.35	2.02	2.08		199
176.96	208.65	68.38	2.26	4.54	24.95	4.40	82.74	2.50	3.07	4.46	0.00		200
177.19	203.07	61.40	1.92	5.50	24.51	6.02	83.61	1.11	3.26	10.22	6.50		204
172.64	230.67		2.78	4.52	24.53	4.78	80.00	2.04	3.38	0.20	1.23	.0141	205
175.35	180.15	59.33	1.08	5.20	24.99	5.22	77.42					.0138	206
186.23	196.53	63.40	1.91	5.02	25.40	5.14	81.41	2.93	3.72	6.28	7.59	.0138	207
182.95	204.99	66.11	2.38	4.77	25.14	5.46	82.02	1.31	3.07	3.62	11.63		208
180.88	205.88	67.47	2.34	4.84	25.10	5.59	82.71	1.65	3.68	2.93	10.94		210
178.59	209.88	66.01			25.24	4.75	79.58						212
174.58	220.07	67.17	2.36	4.68	24.25	4.66	79.32	1.92	3.47	1.72	3.67	.0141	213
176.79	217.25	67.47	2.79	4.53		4.47		2.17	3.07	2.02	2.08		214
180.26	205.84	63.96	2.12	4.90	25.03	4.57	80.71	3.81	3.89	0.68	3.83		215
177.40	212.80	66.85	2.58	4.61		4.73		3.74	3.16	2.02	1.37		217
171.76	207.40	64.09	2.43	4.61	25.51	4.35	81.49	3.56	3.56	2.30	1.21	.0141	218
169.22	223.49		2.43	4.83	24.53	5.01	80.94	0.99	2.50	2.36	4.99	.0139	219
179.46	210.01	68.51	2.40	4.64	25.27	4.71	80.10	3.58	4.10	2.07	3.33	.0139	220

Listing by Code Numbers in Descending Rank Order of Regressed Means

% MORTALITY GROWING PERIOD		% MORTALITY LAYING PERIOD		DAYS OF AGE AT 50% PRODUCTION		EGG PRODUCTION HEN-HOUSED		EGG, PRODUCTION HEN DAY %	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
56	1.83	99	4.58	140	166.55	98	238.03	99	72.57
99	2.26	175	7.12	52	166.93	196	237.65	102	71.89
218	2.42	88	7.34	159	167.69	131	236.01	150	71.66
25	2.45	142	7.46	172	167.69	126	233.12	31	71.56
141	2.54	87	7.57	26	168.46	195	232.72	141	71.38
9	2.69	110	7.57	166	168.84	97	231.17	51	71.35
134	2.71	98	8.37	88	169.04	205	230.67	97	71.27
150	2.71	61	8.38	32	169.22	99	229.81	100	71.08
45	2.74	174	8.61	219	169.22	160	229.27	94	70.96
214	2.76	219	8.63	111	169.60	88	227.11	88	70.93
61	2.83	129	8.83	95	169.77	100	226.68	118	70.92
189	2.83	101	9.27	100	170.04	223	225.50	160	70.52
184	2.89	83	9.43	162	170.36	150	224.63	98	70.49
152	2.91	131	9.43	150	170.65	31	224.16	61	70.43
101	2.97	9	9.44	170	170.65	219	223.49	181	70.39
110	2.99	144	9.54	120	170.65	21	223.11	196	70.35
44	3.06	152	9.68	139	170.74	181	222.79	101	70.29
48	3.09	51	9.69	83	170.74	141	222.26	197	70.26
82	3.13	169	9.72	65	171.12	197	222.06	138	70.07
88	3.14	180	9.79	1	171.12	125	222.01	182	70.03
109	3.15	189	9.95	68	171.12	61	221.94	72	70.00
30	3.27	97	9.96	84	171.13	52	220.80	17	69.94
97	3.28	160	9.97	110	171.16	159	220.60	107	69.68
72	3.29	118	10.07	109	171.25	72	220.27	29	69.68
6	3.35	24	10.13	189	171.41	4	220.24	58	69.40
29	3.37	55	10.14	45	171.45	213	220.07	78	69.36
118	3.37	196	10.20	130	171.50	140	220.06	77	69.34
31	3.38	58	10.24	131	171.50	123	220.04	71	69.18
24	3.39	30	10.34	218	171.76	118	220.01	199	69.04

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% MORTALITY GROWING PERIOD		% MORTALITY LAYING PERIOD		DAYS OF AGE AT 50% PRODUCTION		EGG PRODUCTION HEN-HOUSED		EGG PRODUCTION HEN DAY %	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
181	3.39	34	10.48	97	171.82	102	219.63	144	68.91
2	3.41	53	10.50	156	171.88	94	219.45	92	68.89
144	3.41	204	10.50	14	171.88	110	219.18	126	68.83
36	3.43	213	10.56	55	172.12	144	218.42	12	68.83
125	3.43	205	10.57	223	172.26	172	218.14	110	68.59
197	3.44	141	10.60	134	172.49	199	218.07	82	68.59
47	3.53	184	10.65	136	172.49	142	218.02	220	68.51
92	3.57	218	10.65	23	172.49	182	217.97	184	68.38
53	3.64	215	10.77	144	172.52	83	217.85	200	68.38
199	3.64	39	10.78	78	172.57	175	217.80	123	68.36
71	3.71	143	10.79	22	172.61	68	217.59	175	68.26
26	3.74	92	10.82	205	172.64	42	217.26	21	68.25
52	3.74	77	10.84	90	172.64	214	217.25	39	68.22
58	3.74	90	10.84	48	172.66	115	217.22	125	68.21
65	3.74	134	10.84	169	172.78	169	217.10	13	68.20
91	3.74	150	10.84	46	172.89	189	217.01	106	68.10
107	3.74	182	10.84	91	173.03	12	216.37	180	68.07
111	3.74	186	10.84	113	173.03	101	216.30	30	68.02
115	3.74	214	10.84	12	173.11	138	216.06	19	67.93
130	3.74	217	10.84	70	173.11	51	215.73	64	67.90
139	3.74	31	10.88	30	173.44	44	215.66	84	67.86
142	3.74	13	10.90	34	173.50	77	215.60	169	67.84
153	3.74	195	10.97	39	173.57	180	215.39	44	67.83
156	3.74	25	10.99	16	173.72	17	215.29	131	67.66
166	3.74	109	11.09	196	173.96	19	215.17	109	67.65
205	3.74	78	11.23	181	174.03	107	215.14	41	67.61
163	3.74	82	11.24	178	174.17	109	214.86	42	67.57
223	3.74	106	11.28	37	174.30	184	214.64	214	67.47
207	3.77	111	11.35	19	174.34	134	214.44	210	67.47

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% MORTALITY GROWING PERIOD		% MORTALITY LAYING PERIOD		DAYS OF AGE AT 50% PRODUCTION		EGG PRODUCTION HEN-HOUSED		EGG PRODUCTION HEN DAY %	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
169	3.83	149	11.35	137	174.34	29	214.40	22	67.44
104	3.85	35	11.45	56	174.35	39	214.30	35	67.38
13	3.92	64	11.45	221	174.44	153	214.30	48	67.35
15	3.96	45	11.56	31	174.53	26	214.22	38	67.27
41	3.98	37	11.58	10	174.54	111	214.07	213	67.17
186	3.98	199	11.59	115	174.55	92	214.07	37	67.11
217	3.98	29	11.61	126	174.57	37	213.97	15	67.03
170	4.00	94	11.69	213	174.58	30	213.74	134	66.90
200	4.03	139	11.72	101	174.72	45	213.68	24	66.86
8	4.04	4	11.73	98	174.86	46	213.60	217	66.85
12	4.04	71	11.76	177	174.93	58	213.49	195	66.76
19	4.04	172	11.77	146	174.93	166	213.22	27	66.72
39	4.11	140	11.83	41	174.94	13	213.04	170	66.69
98	4.11	116	11.90	182	174.94	170	213.00	55	66.65
213	4.16	212	11.98	38	174.94	22	212.88	95	66.43
81	4.17	127	12.03	15	174.95	84	212.86	45	66.40
174	4.20	1	12.13	8	174.95	139	212.81	81	66.40
106	4.21	52	12.13	6	174.96	217	212.80	90	66.34
162	4.22	114	12.14	194	175.16	82	212.63	137	66.21
191	4.23	32	12.16	82	175.17	35	212.53	152	66.16
127	4.27	47	12.24	99	175.22	41	212.52	208	66.11
208	4.27	113	12.25	72	175.23	32	212.39	212	66.01
5	4.34	17	12.32	206	175.35	81	212.30	136	66.00
143	4.34	5	12.34	35	175.37	15	212.20	2	65.90
55	4.37	22	12.35	141	175.52	1	212.10	56	65.83
138	4.37	8	12.39	61	175.53	71	211.65	194	65.81
37	4.42	12	12.39	51	175.59	163	211.57	6	65.76
194	4.42	15	12.39	160	175.68	113	211.47	186	65.75
131	4.45	19	12.39	81	175.71	106	211.25	191	65.66

Listing by Code Numbers in Descending Rank Order of Regressed Means,(Cont'd.)

% MORTALITY GROWING PERIOD		% MORTALITY LAYING PERIOD		DAYS OF AGE AT 50% PRODUCTION		EGG PRODUCTION HEN-HOUSED		EGG PRODUCTION HEN DAY %	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
220	4. 46	41	12. 39	197	175. 73	221	211. 18	120	65. 59
10	4. 50	136	12. 39	168	175. 80	78	211. 04	5	65. 59
1	4. 51	137	12. 39	123	175. 81	152	210. 96	129	65. 58
14	4. 51	170	12. 39	198	176. 07	91	210. 78	193	65. 55
32	4. 51	153	12. 50	105	176. 18	64	210. 77	85	65. 54
83	4. 51	162	12. 51	4	176. 20	186	210. 55	25	65. 50
113	4. 51	126	12. 52	24	176. 23	137	210. 31	105	65. 45
140	4. 51	130	12. 52	107	176. 39	120	210. 11	162	65. 44
159	4. 51	42	12. 55	36	176. 41	8	210. 11	36	65. 44
172	4. 51	159	12. 55	106	176. 57	220	210. 01	49	65. 35
178	4. 51	54	12. 56	214	176. 79	212	209. 88	70	65. 31
198	4. 51	138	12. 72	186	176. 79	87	209. 85	116	65. 06
219	4. 51	104	12. 83	5	176. 79	130	209. 78	11	64. 99
21	4. 56	100	12. 85	27	176. 79	24	209. 67	4	64. 90
11	4. 59	68	13. 00	71	176. 84	177	209. 55	23	64. 83
77	4. 59	166	13. 00	163	176. 87	136	209. 43	87	64. 81
182	4. 59	85	13. 02	175	176. 90	6	209. 32	143	64. 81
17	4. 60	123	13. 08	17	176. 91	194	209. 20	10	64. 71
16	4. 61	16	13. 16	200	176. 96	143	208. 70	47	64. 64
94	4. 62	70	13. 16	125	177. 03	200	208. 65	54	64. 37
136	4. 65	135	13. 16	195	177. 03	27	208. 55	16	64. 27
212	4. 66	44	13. 18	47	177. 17	70	208. 31	218	64. 09
129	4. 68	221	13. 20	204	177. 19	38	208. 28	9	64. 07
51	4. 69	84	13. 22	118	177. 40	16	207. 87	215	63. 96
160	4. 69	10	13. 33	217	177. 40	56	207. 72	149	63. 91
34	4. 70	102	13. 33	184	177. 47	65	207. 69	114	63. 81
221	4. 71	107	13. 33	174	177. 59	218	207. 40	174	63. 73
22	4. 80	21	13. 36	102	177. 62	2	207. 37	189	63. 55
196	5. 06	210	13. 59	54	177. 62	105	207. 03	8	63. 51

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% MORTALITY GROWING PERIOD		% MORTALITY LAYING PERIOD		DAYS OF AGE AT 50% PRODUCTION		EGG PRODUCTION HEN-HOUSED		EGG PRODUCTION HEN DAY %	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
78	5. 07	181	13. 63	191	177. 65	174	206. 72	207	63. 40
87	5. 16	36	13. 66	53	177. 80	25	206. 65	135	63. 38
64	5. 17	168	13. 66	104	177. 95	23	206. 62	127	63. 37
167	5. 17	115	13. 67	29	178. 02	48	206. 54	46	63. 19
74	5. 20	208	13. 68	11	178. 02	162	206. 20	34	63. 10
43	5. 26	223	13. 72	135	178. 03	10	206. 00	74	63. 06
70	5. 26	6	13. 76	199	178. 06	210	205. 88	43	62. 91
135	5. 26	197	13. 84	94	178. 09	90	205. 86	167	62. 24
68	5. 28	46	13. 92	25	178. 29	215	205. 84	104	62. 21
100	5. 28	105	13. 93	149	178. 31	34	205. 37	168	62. 06
195	5. 33	120	13. 93	180	178. 31	85	205. 21	40	62. 02
49	5. 34	2	13. 99	138	178. 33	43	205. 03	146	61. 81
105	5. 37	194	14. 10	212	178. 59	208	204. 99	204	61. 40
84	5. 47	220	14. 10	119	178. 63	104	204. 76	148	61. 20
193	5. 48	177	14. 14	193	178. 65	49	204. 39	53	60. 16
123	5. 49	81	14. 15	9	178. 67	47	204. 30	206	59. 33
148	5. 50	48	14. 29	152	178. 69	135	204. 02	119	59. 19
204	5. 50	43	14. 43	92	178. 98	95	204. 00	185	58. 64
42	5. 51	200	14. 43	85	179. 07	9	203. 95	73	58. 20
35	5. 56	26	14. 44	2	179. 10	55	203. 28	147	57. 47
210	5. 58	91	14. 44	77	179. 25	204	203. 07	145	57. 44
149	5. 63	23	14. 70	74	179. 25	54	202. 95	155	40. 70
27	5. 80	27	14. 70	220	179. 46	191	202. 73		
180	5. 80	146	14. 74	21	179. 74	149	202. 60		
4	5. 81	119	14. 82	142	179. 88	193	202. 35		
102	5. 83	65	14. 86	145	179. 88	5	201. 96		
54	5. 86	178	14. 89	13	179. 90	114	201. 82		
120	5. 94	198	14. 89	43	180. 11	74	200. 41		
137	5. 94	222	15. 11	215	180. 26	198	200. 02		

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% MORTALITY GROWING PERIOD		% MORTALITY LAYING PERIOD		DAYS OF AGE AT 50% PRODUCTION		EGG PRODUCTION HEN-HOUSED		EGG PRODUCTION HEN OAY %	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
168	5. 98	56	15. 31	73	180. 49	53	199. 10		
177	6. 05	163	15. 36	153	180. 64	14	199. 02		
146	6. 21	95	15. 45	210	180. 88	178	198. 82		
175	6. 22	147	15. 47	87	181. 10	146	197. 25		
46	6. 24	49	15. 96	116	181. 23	11	197. 12		
126	6. 24	193	16. 08	42	181. 28	167	196. 93		
116	6. 32	74	16. 25	114	181. 31	148	196. 62		
40	6. 41	72	16. 34	127	181. 33	207	196. 53		
85	6. 60	11	17. 02	40	181. 71	116	196. 25		
90	6. 73	125	17. 15	64	181. 73	119	195. 03		
38	6. 74	207	17. 19	208	182. 95	36	193. 04		
222	6. 82	148	17. 45	129	184. 41	127	192. 75		
206	6. 93	167	17. 62	222	184. 45	129	192. 55		
23	7. 16	14	17. 79	185	184. 57	40	191. 86		
145	7. 61	73	18. 56	167	185. 42	222	190. 69		
95	7. 93	145	18. 64	58	185. 61	73	188. 62		
114	8. 07	156	18. 71	143	185. 92	168	188. 10		
147	8. 24	38	19. 29	207	186. 23	147	185. 93		
155	8. 24	40	20. 11	147	186. 63	145	185. 77		
119	9. 45	155	20. 88	148	192. 56	156	184. 97		
73	9. 78	191	24. 21	155	217. 38	206	180. 15		
185	10. 37	185	25. 37			185	177. 45		
215	10. 56	206	26. 14			155	153. 45		

Listing by Code Numbers in Descending Rank Order of Regressed Means,(Cont'd.)

INCOME OVER FEED AND CHICK COST-\$		FEED CONVERSION LBS. PER 24 OZ. OF EGGS		AVERAGE EGG WEIGHT-OZ.		BODY WEIGHT LBS.		ALBUMEN QUALITY HAUGH UNITS	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
99	3.08	100	4.20	85	25.96	143	4.00	174	84.14
118	3.05	99	4.23	134	25.89	2	4.04	22	83.89
182	2.96	98	4.24	26	25.76	98	4.10	115	83.88
98	2.92	97	4.27	102	25.73	129	4.12	152	83.88
102	2.91	102	4.31	110	25.65	99	4.12	142	83.84
196	2.88	73	4.31	175	25.65	186	4.13	78	83.83
77	2.88	118	4.37	24	25.64	97	4.18	143	83.81
141	2.87	182	4.37	136	25.63	58	4.20	110	83.79
97	2.84	141	4.38	126	25.57	100	4.20	90	83.77
115	2.83	88	4.40	181	25.53	115	4.22	149	83.74
160	2.82	15	4.40	218	25.51	182	4.22	58	83.69
131	2.80	170	4.40	99	25.49	70	4.24	68	83.64
214	2.79	150	4.41	140	25.48	51	4.26	204	83.61
101	2.78	115	4.41	129	25.48	138	4.27	35	83.38
205	2.78	101	4.42	159	25.44	111	4.27	129	83.32
17	2.74	160	4.42	42	25.43	35	4.28	134	83.28
126	2.73	92	4.42	21	25.42	17	4.29	15	83.28
109	2.73	181	4.42	82	25.40	160	4.29	88	83.24
142	2.73	131	4.43	207	25.40	174	4.32	167	83.24
31	2.72	126	4.44	166	25.36	55	4.32	153	83.23
110	2.72	197	4.44	109	25.35	19	4.33	10	83.20
88	2.71	196	4.45	127	25.35	22	4.35	145	83.16
199	2.71	77	4.45	47	25.32	92	4.35	71	82.92
100	2.70	31	4.45	83	25.32	144	4.35	137	82.87
52	2.70	19	4.45	98	25.30	218	4.35	106	82.85
150	2.69	169	4.47	195	25.30	87	4.35	51	82.82
195	2.69	82	4.47	148	25.30	152	4.36	200	82.74
175	2.68	111	4.48	142	25.28	101	4.37	210	82.71
134	2.67	138	4.48	13	25.28	24	4.37	55	82.70

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

INCOME OVER FEED AND CHICK COST-\$		FEED CONVERSION LBS. PER 24 OZ. OF EGGS		AVERAGE EGG WEIGHT-OZ.		BODY WEIGHT LBS.		ALBUMEN QUALITY HAUGH UNITS	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
159	2. 67	195	4. 49	220	25. 27	131	4. 38	146	82. 67
83	2. 66	78	4. 49	97	25. 26	195	4. 38	23	82. 66
61	2. 65	45	4. 49	55	25. 25	13	4. 39	36	82. 56
29	2. 65	199	4. 49	17	25. 24	27	4. 39	175	82. 54
92	2. 65	12	4. 49	87	25. 24	200	4. 40	30	82. 49
78	2. 64	17	4. 50	212	25. 24	68	4. 41	19	82. 45
138	2. 62	153	4. 50	137	25. 23	15	4. 41	130	82. 45
19	2. 62	48	4. 51	115	25. 20	88	4. 41	70	82. 39
181	2. 61	205	4. 52	45	25. 20	145	4. 41	102	82. 38
51	2. 60	159	4. 52	153	25. 20	25	4. 41	25	82. 34
15	2. 60	110	4. 53	58	25. 20	156	4. 41	138	82. 32
153	2. 60	214	4. 53	64	25. 20	105	4. 41	92	82. 27
58	2. 59	41	4. 53	174	25. 20	177	4. 41	48	82. 26
217	2. 58	142	4. 54	114	25. 20	153	4. 45	136	82. 18
197	2. 57	58	4. 54	101	25. 18	48	4. 46	17	82. 18
184	2. 56	30	4. 54	19	25. 17	42	4. 46	82	82. 06
12	2. 55	200	4. 54	105	25. 17	189	4. 46	94	82. 05
32	2. 55	152	4. 55	25	25. 16	127	4. 46	208	82. 02
39	2. 53	39	4. 55	91	25. 16	77	4. 47	84	81. 98
30	2. 53	143	4. 55	81	25. 15	214	4. 47	53	81. 88
13	2. 51	72	4. 55	208	25. 14	41	4. 47	72	81. 84
152	2. 51	134	4. 57	54	25. 14	104	4. 48	73	81. 83
55	2. 50	35	4. 57	139	25. 12	90	4. 50	185	81. 81
166	2. 50	68	4. 57	113	25. 12	134	4. 50	95	81. 80
26	2. 49	52	4. 58	131	25. 11	137	4. 50	39	81. 75
111	2. 49	107	4. 58	143	25. 10	136	4. 50	81	81. 69
107	2. 48	184	4. 59	210	25. 10	21	4. 50	139	81. 68
82	2. 48	47	4. 59	120	25. 10	198	4. 50	2	81. 63,
21	2. 48	70	4. 59	104	25. 10	1	4. 50	101	81. 62

Listing by Code Numbers in Descending Rank Order of Regressed Means,(Cont'd.)

INCOME OVER FEED AND CHICK COST-\$		FEED CONVERSION LBS. PER 24 OZ. OF EGGS		AVERAGE EGG WEIGHT-OZ.		BODY WEIGHT LBS.		ALBUMEN QUALITY HAUGH UNITS	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
24	2.48	84	4.59	51	25.08	175	4.51	144	81.62
129	2.48	61	4.60	141	25.07	199	4.51	131	81.60
172	2.48	13	4.60	95	25.07	197	4.51	114	81.55
68	2.48	218	4.61	184	25.03	82	4.52	42	81.51
71	2.47	186	4.61	215	25.03	110	4.53	38	81.51
41	2.47	217	4.61	92	25.02	141	4.53	218	81.49
35	2.45	109	4.61	172	25.01	78	4.54	189	81.49
136	2.45	139	4.61	9	25.01	102	4.54	156	81.43
223	2.45	51	4.62	194	25.01	81	4.54	207	81.41
144	2.44	1	4.62	5	25.01	139	4.55	181	81.38
113	2.44	172	4.63	48	25.00	46	4.55	9	81.09
180	2.43	25	4.64	6	25.00	37	4.55	116	81.07
42	2.43	44	4.64	193	25.00	30	4.56	45	81.06
218	2.43	220	4.64	138	24.99	118	4.56	222	81.02
219	2.43	223	4.65	39	24.99	106	4.57	85	80.98
170	2.42	175	4.65	206	24.99	39	4.57	159	80.98
1	2.42	4	4.67	78	24.97	181	4.57	87	80.95
72	2.41	136	4.67	35	24.97	215	4.57	219	80.94
220	2.40	55	4.68	68	24.97	34	4.57	64	80.90
137	2.40	213	4.68	52	24.97	31	4.57	13	80.87
143	2.40	36	4.68	177	24.97	84	4.58	199	80.87
140	2.39	24	4.69	16	24.97	142	4.59	46	80.87
177	2.39	29	4.69	200	24.95	109	4.59	54	80.79
44	2.38	71	4.69	107	24.94	72	4.60	113	80.78
208	2.38	140	4.69	10	24.94	64	4.61	104	80.76
186	2.38	32	4.69	199	24.90	184	4.62	109	80.74
22	2.37	74	4.69	152	24.90	43	4.63	215	80.71
45	2.37	189	4.70	71	24.90	168	4.63	105	80.66
213	2.36	106	4.70	149	24.90	94	4.64	148	80.64

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

INCOME OVER FEED AND CHICK COST-\$		FEED CONVERSION LBS. PER 24 OZ. OF EGGS		AVERAGE EGG WEIGHT-OZ.		BODY WEIGHT LBS.		ALBUMEN QUALITY HAUGH UNITS	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
87	2. 36	22	4. 70	32	24. 89	29	4. 64	191	80. 64
106	2. 35	123	4. 70	156	24. 89	169	4. 65	166	80. 57
64	2. 35	129	4. 71	144	24. 87	213	4. 66	24	80. 53
48	2. 35	105	4. 71	160	24. 86	23	4. 67	12	80. 45
210	2. 34	87	4. 72	197	24. 86	45	4. 67	8	80. 45
189	2. 34	113	4. 72	4	24. 86	12	4. 67	150	80. 45
130	2. 34	166	4. 72	46	24. 86	146	4. 69	194	80. 44
123	2. 32	37	4. 73	189	24. 85	180	4. 69	111	80. 33
84	2. 32	26	4. 73	123	24. 85	38	4. 70	141	80. 31
120	2. 32	38	4. 73	196	24. 84	194	4. 71	125	80. 29
105	2. 32	180	4. 74	12	24. 84	220	4. 71	177	80. 21
16	2. 31	94	4. 74	135	24. 84	47	4. 71	160	80. 20
139	2. 31	42	4. 74	72	24. 83	71	4. 72	16	80. 11
94	2. 30	65	4. 74	1	24. 81	191	4. 72	220	80. 10
70	2. 28	144	4. 75	2	24. 80	126	4. 72	162	80. 10
174	2. 28	21	4. 75	61	24. 73	113	4. 73	123	80. 09
163	2. 28	81	4. 75	14	24. 73	162	4. 73	184	80. 07
169	2. 27	23	4. 75	222	24. 73	217	4. 73	193	80. 07
91	2. 27	64	4. 76	22	24. 69	185	4. 74	34	80. 03
200	2. 26	6	4. 76	146	24. 69	5	4. 74	205	80. 00
4	2. 26	83	4. 77	30	24. 67	212	4. 75	43	80. 00
37	2. 25	162	4. 77	56	24. 67	170	4. 75	61	79. 94
81	2. 25	208	4. 77	73	24. 64	9	4. 76	37	79. 91
27	2. 24	125	4. 77	106	24. 64	123	4. 76	98	79. 88
194	2. 23	91	4. 78	180	24. 64	193	4. 78	21	79. 85
65	2. 23	174	4. 80	53	24. 64	205	4. 78	198	79. 84
135	2. 22	137	4. 80	65	24. 61	4	4. 79	168	79. 80
23	2. 21	130	4. 80	178	24. 61	114	4. 80	197	79. 76
2	2. 18	163	4. 80	162	24. 57	107	4. 80	1	79. 72

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

INCOME OVER FEED AND CHICK COST-\$		FEED CONVERSION LBS. PER 24 OZ. OF EGGS		AVERAGE EGG WEIGHT-OZ.		BODY WEIGHT LBS.		ALBUMEN QUALITY HAUGH UNITS	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
127	2. 18	54	4. 80	205	24. 53	36	4. 81	126	79. 67
36	2. 17	46	4. 82	38	24. 53	125	4. 81	195	79. 67
38	2. 16	219	4. 83	219	24. 53	130	4. 82	14	79. 64
56	2. 16	56	4. 83	116	24. 52	120	4. 84	212	79. 58
116	2. 16	210	4. 84	204	24. 51	10	4. 88	47	79. 56
95	2. 15	198	4. 84	130	24. 49	54	4. 88	163	79. 56
114	2. 15	120	4. 85	111	24. 45	178	4. 91	135	79. 56
125	2. 14	27	4. 85	125	24. 45	150	4. 92	107	79. 55
47	2. 14	221	4. 86	8	24. 44	61	4. 92	172	79. 47
54	2. 12	177	4. 86	145	24. 41	219	5. 01	26	79. 39
215	2. 12	168	4. 87	223	24. 41	44	5. 01	31	79. 37
85	2. 10	114	4. 88	170	24. 38	221	5. 02	213	79. 32
149	2. 10	2	4. 88	191	24. 38	6	5. 04	91	79. 23
193	2. 09	215	4. 90	185	24. 37	52	5. 05	32	79. 19
10	2. 09	104	4. 90	23	24. 31	163	5. 05	56	79. 17
221	2. 09	9	4. 91	31	24. 30	74	5. 07	5	79. 14
25	2. 08	10	4. 92	84	24. 29	159	5. 10	140	78. 86
8	2. 08	90	4. 93	36	24. 29	65	5. 10	180	78. 85
104	2. 07	194	4. 93	163	24. 25	167	5. 12	4	78. 81
162	2. 06	5	4. 94	213	24. 25	207	5. 14	178	78. 74
6	2. 05	193	4. 99	150	24. 24	172	5. 19	120	78. 73
9	2. 05	34	5. 00	90	24. 21	91	5. 19	65	78. 57
34	2. 03	178	5. 00	34	24. 19	206	5. 22	52	78. 45
178	2. 00	16	5. 02	15	24. 18	32	5. 23	223	78. 41
90	1. 98	207	5. 02	198	24. 17	166	5. 28	97	78. 26
5	1. 97	127	5. 03	88	24. 15	83	5. 28	83	78. 13
14	1. 96	14	5. 03	43	24. 11	56	5. 29	6	78. 00
53	1. 94	156	5. 03	37	24. 10	196	5. 32	127	77. 87
46	1. 93	8	5. 06	168	24. 09	26	5. 33	196	77. 53

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

INCOME OVER FEED AND CHICK COST-\$		FEED CONVERSION LBS. PER 24 OZ. OF EGGS		AVERAGE EGG WEIGHT-OZ.		BODY WEIGHT LBS.		ALBUMEN QUALITY HAUGH UNITS	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
43	1.92	43	5.07	169	24.05	222	5.37	206	77.42
204	1.92	85	5.08	100	24.04	140	5.37	170	77.00
207	1.91	135	5.10	94	24.03	223	5.42	99	76.67
74	1.91	116	5.13	167	24.01	73	5.43	169	75.99
168	1.89	146	5.14	70	23.98	208	5.46	100	75.62
198	1.88	145	5.15			155	5.58		
49	1.87	149	5.16			210	5.59		
148	1.81	206	5.20			116	5.61		
222	1.80	49	5.22			147	5.67		
156	1.79	95	5.26			14	5.69		
73	1.78	148	5.28			40	5.75		
146	1.74	167	5.31			8	5.77		
167	1.66	191	5.32			53	5.85		
11	1.54	53	5.33			49	5.86		
191	1.45	222	5.37			85	5.88		
40	1.44	204	5.50			149	6.02		
119	1.35	185	5.51			204	6.02		
145	1.24	11	5.56			119	6.09		
206	1.08	40	5.56			16	6.11		
185	1.02	119	5.96			135	6.11		
147	0.95	147	6.12			148	6.19		
155	0.80	155	9.29			11	6.26		
						95	6.28		

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% BLOOD SPOTS 1/8 INCH OR MORE		% BLOOD SPOTS LESS THAN 1/8 INCH		% MEAT SPOTS 1/8 INCH OR MORE		% MEAT SPOTS LESS THAN 1/8 INCH		SHELL THICKNESS DIRECT MEASURE-INCH	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
119	0.39	219	2.50	71	0.00	145	0.00	111	.0142
95	0.42	99	2.51	68	0.20	25	0.00	156	.0142
116	0.56	47	2.55	130	0.20	185	0.00	223	.0142
182	0.88	144	2.59	159	0.20	106	0.00	110	.0141
149	0.89	116	2.63	205	0.20	200	0.00	194	.0141
11	0.93	30	2.68	111	0.20	38	0.09	87	.0141
14	0.99	10	2.85	198	0.20	152	0.15	101	.0141
219	0.99	102	2.85	115	0.20	99	0.48	42	.0141
47	1.04	74	2.99	142	0.20	169	0.57	218	.0141
204	1.11	9	3.01	140	0.20	143	0.67	205	.0141
208	1.31	48	3.05	26	0.20	146	0.72	189	.0141
5	1.42	208	3.07	163	0.20	90	0.72	153	.0141
91	1.52	214	3.07	139	0.20	174	0.72	138	.0141
178	1.52	200	3.07	1	0.20	110	0.73	92	.0141
222	1.52	182	3.10	189	0.20	194	0.84	13	.0141
85	1.59	174	3.10	153	0.20	107	0.84	175	.0141
87	1.63	52	3.11	51	0.20	10	0.84	71	.0141
185	1.65	166	3.11	4	0.25	54	0.84	104	.0141
210	1.65	83	3.11	146	0.37	87	0.86	21	.0141
52	1.69	175	3.12	162	0.37	98	0.87	24	.0141
223	1.69	5	3.15	145	0.37	126	0.87	30	.0141
141	1.69	217	3.16	52	0.38	191	0.87	160	.0141
155	1.69	92	3.17	91	0.38	81	0.92	5	.0141
172	1.69	98	3.19	65	0.38	101	0.93	213	.0141
30	1.79	204	3.26	113	0.38	88	1.06	114	.0141
152	1.80	178	3.29	32	0.38	42	1.12	83	.0141
115	1.87	68	3.29	84	0.38	162	1.19	163	.0141
139	1.87	130	3.29	177	0.38	97	1.19	36	.0141
166	1.87	46	3.29	178	0.56	218	1.21	56	.0141

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% BLOOD SPOTS 1/8 INCH OR MORE		% BLOOD SPOTS LESS THAN 1/8 INCH		% MEAT SPOTS 1/8 INCH OR MORE		% MEAT SPOTS LESS THAN 1/8 INCH		SHELL THICKNESS DIRECT MEASURE-INCH	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
186	1. 90	13	3. 29	172	0. 56	68	1. 23	38	. 0140
213	1. 92	24	3. 29	22	0. 62	205	1. 23	107	. 0140
94	1. 93	2	3. 30	215	0. 68	111	1. 23	54	. 0140
65	2. 04	38	3. 30	90	0. 73	115	1. 23	126	. 0140
68	2. 04	29	3. 31	87	0. 74	142	1. 23	97	. 0140
130	2. 04	39	3. 33	110	0. 78	26	1. 23	115	. 0140
140	2. 04	199	3. 35	35	0. 78	139	1. 23	142	. 0140
159	2. 04	94	3. 36	45	0. 79	1	1. 23	139	. 0140
205	2. 04	169	3. 36	99	0. 80	189	1. 23	1	. 0140
2	2. 05	222	3. 38	82	0. 80	153	1. 23	51	. 0140
10	2. 07	87	3. 38	98	0. 86	51	1. 23	43	. 0140
194	2. 07	159	3. 38	195	0. 86	65	1. 23	130	. 0140
9	2. 12	205	3. 38	101	0. 86	178	1. 23	4	. 0140
39	2. 12	77	3. 39	88	0. 91	46	1. 31	177	. 0140
77	2. 12	197	3. 39	43	0. 95	43	1. 34	181	. 0140
144	2. 16	152	3. 42	38	1. 02	182	1. 37	195	. 0140
214	2. 17	138	3. 43	138	1. 06	217	1. 37	131	. 0140
106	2. 19	143	3. 44	174	1. 09	27	1. 37	39	. 0140
83	2. 22	146	3. 44	30	1. 11	186	1. 37	47	. 0140
143	2. 22	194	3. 45	143	1. 14	118	1. 37	2	. 0140
90	2. 24	91	3. 46	181	1. 14	41	1. 37	125	. 0140
145	2. 24	65	3. 46	126	1. 14	82	1. 40	166	. 0140
17	2. 32	111	3. 46	191	1. 14	138	1. 40	116	. 0140
123	2. 34	45	3. 46	144	1. 19	92	1. 45	55	. 0140
98	2. 35	198	3. 46	97	1. 21	94	1. 46	64	. 0140
131	2. 35	185	3. 47	92	1. 22	130	1. 47	98	. 0139
191	2. 35	213	3. 47	102	1. 23	159	1. 47	191	. 0139
195	2. 35	148	3. 47	194	1. 23	198	1. 47	68	. 0139
99	2. 37	181	3. 47	107	1. 23	52	1. 47	65	. 0139

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd)

% BLOOD SPOTS 1/8 INCH OR MORE		% BLOOD SPOTS LESS THAN 1/8 INCH		% MEAT SPOTS 1/8 INCH OR MORE		% MEAT SPOTS LESS THAN 1/8 INCH		SHELL THICKNESS DIRECT MEASURE-INCH	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
110	2.39	126	3.50	114	1.23	32	1.47	178	.0139
4	2.45	42	3.51	156	1.28	84	1.47	46	.0139
25	2.50	27	3.52	42	1.33	163	1.47	198	.0139
200	2.50	72	3.53	24	1.38	4	1.49	52	.0139
88	2.51	4	3.54	196	1.42	72	1.56	84	.0139
26	2.57	14	3.55	131	1.42	45	1.63	45	.0139
32	2.57	115	3.55	141	1.49	13	1.63	184	.0139
51	2.57	142	3.55	152	1.50	184	1.63	113	.0139
142	2.57	223	3.55	13	1.54	175	1.69	58	.0139
22	2.59	123	3.56	109	1.55	71	1.70	123	.0139
146	2.59	218	3.56	72	1.56	140	1.70	31	.0139
162	2.59	149	3.58	9	1.58	113	1.70	35	.0139
174	2.59	186	3.58	61	1.58	177	1.70	102	.0139
199	2.60	78	3.60	2	1.67	172	1.70	144	.0139
78	2.61	97	3.60	197	1.67	181	1.71	197	.0139
21	2.62	31	3.60	104	1.67	58	1.73	141	.0139
125	2.62	90	3.62	21	1.70	123	1.74	37	.0139
196	2.62	140	3.64	125	1.70	104	1.75	220	.0139
81	2.66	113	3.64	48	1.72	195	1.76	48	.0139
48	2.70	118	3.67	213	1.72	131	1.76	219	.0139
148	2.73	210	3.68	123	1.74	9	1.76	6	.0139
1	2.74	106	3.68	58	1.79	21	1.76	100	.0139
84	2.74	104	3.68	25	1.85	22	1.78	127	.0139
111	2.74	21	3.71	81	1.89	17	1.80	129	.0139
58	2.77	26	3.72	160	1.93	91	1.94	193	.0139
118	2.77	32	3.72	5	1.94	156	1.94	99	.0138
97	2.80	84	3.72	46	1.98	24	1.98	10	.0138
107	2.82	207	3.72	31	2.01	31	2.02	81	.0138
160	2.83	88	3.73	47	2.02	78	2.03	88	.0138

Listing by Code Numbers in Descending Rank Order of Regressed Means,(Cont'd.)

% BLOOD SPOTS 1/8 INCH OR MORE		% BLOOD SPOTS LESS THAN 1/8 INCH		% MEAT SPOTS 1/8 INCH OR MORE		% MEAT SPOTS LESS THAN 1/8 INCH		SHELL THICKNESS DIRECT MEASURE-INCH	
STOCK CODE	REGRESSEO MEAN	STOCK CODE	REGRESSEO MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSEO MEAN
35	2.84	71	3.74	214	2.02	214	2.08	82	.0138
72	2.84	11	3.75	182	2.02	199	2.08	159	.0138
29	2.87	54	3.78	217	2.02	39	2.08	32	.0138
37	2.87	162	3.79	199	2.02	109	2.09	72	.0138
138	2.88	141	3.80	77	2.02	35	2.12	140	.0138
46	2.89	139	3.81	27	2.02	74	2.17	172	.0138
71	2.89	191	3.82	186	2.02	30	2.19	22	.0138
126	2.89	125	3.82	118	2.02	196	2.20	91	.0138
207	2.93	110	3.86	41	2.02	47	2.25	78	.0138
45	2.96	155	3.88	40	2.02	102	2.27	14	.0138
104	2.97	43	3.88	220	2.07	160	2.27	207	.0138
74	2.98	215	3.89	10	2.13	2	2.38	95	.0138
82	3.00	172	3.90	37	2.13	144	2.43	167	.0138
184	3.07	109	3.92	78	2.22	180	2.50	168	.0138
113	3.09	95	3.96	218	2.30	197	2.64	206	.0138
31	3.13	145	3.97	219	2.36	77	2.79	26	.0137
43	3.21	184	4.00	175	2.37	141	2.99	196	.0137
61	3.23	107	4.01	39	2.46	125	3.09	222	.0137
163	3.26	196	4.03	74	2.52	37	3.11		
180	3.31	37	4.04	185	2.54	29	3.14		
189	3.44	180	4.05	29	2.58	5	3.18		
198	3.44	25	4.06	223	2.59	220	3.33		
92	3.48	17	4.07	119	2.63	213	3.67		
181	3.48	160	4.07	17	2.82	215	3.83		
13	3.50	82	4.08	210	2.93	114	4.22		
175	3.53	220	4.10	106	2.93	61	4.23		
169	3.54	53	4.10	184	2.95	48	4.46		
218	3.56	22	4.11	180	3.22	223	4.49		
220	3.58	41	4.11	83	3.25	219	4.99		

Listing by Code Numbers in Descending Rank Order of Regressed Means, (Cont'd.)

% BLOOD SPOTS 1/8 INCH OR MORE		% BLOOD SPOTS LESS THAN 1/8 INCH		% MEAT SPOTS 1/8 INCH OR MORE		% MEAT SPOTS LESS THAN 1/8 INCH		SHELL THICKNESS DIRECT MEASURE-INCH	
STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN	STOCK CODE	REGRESSED MEAN
177	3.62	195	4.14	148	3.49	83	5.46		
24	3.63	1	4.16	208	3.62	204	6.50		
102	3.69	189	4.16	169	3.62	14	7.34		
42	3.74	153	4.16	14	3.97	207	7.59		
217	3.74	85	4.17	11	3.98	166	7.81		
215	3.81	101	4.20	53	4.05	210	10.94		
197	3.89	51	4.25	94	4.18	208	11.63		
153	3.97	177	4.25	155	4.43	40	11.76		
41	4.01	119	4.26	200	4.46	148	11.82		
114	4.12	156	4.42	54	4.54	155	13.00		
53	4.35	131	4.45	147	4.71	116	15.67		
54	4.44	114	4.46	85	5.77	147	15.75		
101	4.54	163	4.56	149	6.10	85	16.28		
109	4.71	35	4.69	207	6.28	11	18.06		
38	4.79	58	4.75	166	7.75	149	19.81		
40	4.87	61	4.79	204	10.22	53	19.82		
156	5.02	40	5.02	95	12.24	222	20.75		
147	5.03	81	5.15	116	15.50	95	21.74		
27	8.75	147	5.31	222	16.19	119	27.21		

Breeders of Stocks in 1958-59 Random Sample Egg Production Tests

- A & M Poultry Farm & Hatchery,
Box 267, Santa Rosa, California
- Allstate Hatchery,
Box 112, Willmar, Minnesota
- Ames In-Cross,
504 1/2 Grand Ave., Des Moines, Iowa
- Anthony, Geo. M. & Sons,
Strausstown, Pennsylvania
- Avery, C. T. & Son,
Colrain, Massachusetts
- Ayrest Poultry Ranch & Hatchery,
3302 Santa Clara, Oxnard, California
- Babcock Poultry Farm,
Box 286, Ithaca, New York
- Batcheller Poultry Farm,
11458 Monte Vista, Chino, California
- Bagby Poultry Farm,
318 W. Second St., Sedalia, Missouri
- Ball Poultry Farm,
Owego, New York
- Beamsdale Farm,
R. D. 2, Lawndale, North Carolina
- Bloemendaal Hatcheries,
Box 428, Hartley, Iowa
- Booth Hatchery,
Box 393, Clinton, Missouri
- Brender's Leghorns,
Ferndale, New York
- Bulkley's Leghorns,
Odessa, New York
- Bundesen Brothers,
1290 Bodega Ave., Petaluma, California
- Burr's Poultry Farm,
R. D. 1, Tunkhannock, Pennsylvania
- Cameron Hatchery,
Beaver Springs, Pennsylvania
- Carey Farms,
R. D. 7, Marion, Ohio
- Cashman Leghorn Farm,
Webster, Kentucky
- Childers Hatchery,
Box 1793, Santa Ana, California
- Colonial Poultry Farms,
Box 60, Pleasant Hill, Missouri
- Cornell University,
Rice Hall, Ithaca, New York
- Creighton Brothers,
R. D. 5, Warsaw, Indiana
- Crooks Farm,
North Brookfield, Massachusetts
- Cunningham, F. M.,
Beaver Falls, Pennsylvania
- Darby Leghorn Farm,
R. D. 5, Somerville, New Jersey
- DeKalb Agricultural Association,
111 E. State St., Sycamore, Illinois
- Del Rio Farm,
Route 1, Box 460, Mesa, Arizona
- Demler Farm,
Box 687, Anaheim, California
- Douglaston Manor,
Pulaski, New York
- Drake, John W.,
Skillman, New Jersey
- Eby's Poultry Farm,
R. D. 1, Box 192, Carrollton, Texas
- Edmonds Trapnest Leghorns,
Luverne, Minnesota
- Eelman Poultry Farm,
101 Oldham Road, Wayne, New Jersey
- Ford's Leghorn Farm,
Box 283, Lockport, New York
- Garber Poultry Farm,
Box 639, Modesto, California
- Gasson's Poultry Farm,
Box 16, Versailles, Ohio
- Ghostley Poultry Farm,
Anoka, Minnesota
- Gibson Quality Hatcheries,
Lexington, Missouri
- Graybill, L. J.,
McAlisterville, Pennsylvania
- Greider Leghorn Farm,
R. D. 1, Mt. Joy, Pennsylvania

11 Brothers Hatchery,
Wallingford, Connecticut

insen's Leghorn City,
5003 N. Meridian St., Puyallup, Washington

insen, Paul, Poultry Farm,
547 E. Clayton Ave., Fresno, California

nson, J. A. & Son,
Box 692, Corvallis, Oregon

rco Orchards & Poultry Farm,
o. Easton, Massachusetts

rper's Poultry Farm,
D. 4, Box 40, Freehold, New Jersey

isdorf & Nelson Farms, Inc.,
ox 428, Kirkland, Washington

bart Poultry Farm,
obart, New York

gsett Poultry Breeding Farm,
ox 278, Pomona, California

negger Breeder Hatchery,
orrest, Illinois

over Poultry Farm,
o. Manchester, Indiana

bbard Farms,
Walpole, New Hampshire

-Line Poultry Farms,
206 Mulberry St., Des Moines, Iowa

sal Hatchery & Poultry Farm,
Box 710, Cameron, Texas

lian Head Hatchery,
Box 167, Toms River, New Jersey

liana Farm Bureau,
7 S. Pennsylvania St., Indianapolis, Indiana

ck Frost Hatchery,
11 7th Ave. South, St. Cloud, Minnesota

obs Poultry Farm,
urora, New York

hn's Leghorn Farm,
ox 70A Hooper Ave., Toms River, New Jersey

ystone Poultry Breeding Farm,
556 Creek Hill Rd., Ephrata, Pennsylvania

aber Farms, Inc.,
ox 8, Niles, California

ger's Poultry Farm,
090 Ave. 400, Dinuba, California

ewood Egg Farm,
D. 4, Lakewood, New Jersey

Lasher Hatchery,
839 Petaluma Blvd. N., Petaluma, California

Lawton & Sons,
70 North St., Foxboro, Massachusetts

Leader, G. A. & Sons,
R. D. 2, York, Pennsylvania

Lee's Poultry Farm,
R. D. 3, Brookville, Ohio

Leonard's Hatchery,
Osage, Iowa

Lux Leghorn Farms, Inc.,
Hopkinton, Iowa

Marti Leghorn Farm, Inc.,
Windsor, Missouri

Mathews Poultry Farm,
R. D. 2, Box 47, Burlington, Wisconsin

McDonald, Raymond, Hatchery,
Box 1665, Fort Worth, Texas

McDonald, Roy, Hatchery,
Box 4275, Dallas, Texas

McKeen's Hatchery,
Box 888, San Luis Obispo, California

Meadow View Hatchery,
R. D. 3, Eau Claire, Wisconsin

Midwest Poultry Farm,
Marshall, Missouri

Missouri Valley Hatchery,
Marshall, Missouri

Mt. Hope Poultry Farm,
Box 462, Batavia, New York

Niles Poultry Breeding Farm,
Box 184, Niles, California

Nimton Leghorn Breeding Farm,
R. D. 6, Bridgeton, New Jersey

Norco Poultry Breeding Farm,
940 E. 6th St., Norco, California

Norris, Vernon,
R. D. 2, Valencia, Pennsylvania

Oster, Jacob, Leghorn Farm,
R. D. 1, Box 181, Flemington, New Jersey

Ottawa Central Experimental Farm,
Ottawa, Canada

Parks Poultry Farm,
Cortland, New York

Parks Barred Rock Farm,
R. D. 4, Altoona, Pennsylvania

Parmelee, H. R., Rockfall, Connecticut	Stever Hatchery, R. D. 2, Huntington, Pennsylvania
Parmenter Reds, Inc., 466 King St., Franklin, Massachusetts	Stone's Poultry Farm, 4347 Ave. 400, Dinuba, California
Peerless Hatchery, Box 908, Spencer, Iowa	Stone Brothers Hatchery, Madelia, Minnesota
Pennsylvania Farm Bureau Hatchery, R. D. 3, Harrisburg, Pennsylvania	Streetway Poultry Farms, 5717 Portland Ave., White Bear Lake, Minnesota
Petaluma Cooperative Hatchery, 1290 Bodega Ave., Petaluma, California	Struthoff, Bernhard, R. D. 3, Vincentown, New Jersey
Pineland Red Farm, Mayesville, South Carolina	Sunnyside Hatchery, 120 W. Main St., Watertown, Wisconsin
Pollard & Son, Box 397, Tustin, California	Swift & Company, Chicago, Illinois
Randall Hatchery, 4786 Moreno St., Montclair, California	Tobin-Galyean Hatchery & Breeding Farm, R. D. 2, Box 1095, San Marcos, California
Rapp Leghorn Farm, Inc., Box 356, Farmingdale, New Jersey	Townline Poultry Farm, Box 108, Zeeland, Michigan
Reuter, Henry, Holland, New York	Truway Farms, East Berlin, Pennsylvania
Richardson Poultry Breeding Farm, R. D. 2, Box 656, Redlands, California	Vancrest Farm, Hyde Park, New York
Rittenhouse & Sons, 1736 W. Cienega, San Dimas, California	Vilas Poultry Farm, Box 274, Ceres, California
Robinson Poultry Farm, Pine City, Minnesota	Voscinar Poultry Farm, Rt. 1, Box 561, Brooksville, Florida
Rucker's Poultry Farm, Box 457, Ottumwa, Iowa	Warren, J. J., 82 Ward St., N. Brookfield, Massachusetts
Sales & Bourke, Inc., 2525 Kansas Ave., Riverside, California	Webster Poultry Farms, R. D. 3, Auburn, New York
Sand Hill Farms, Almond, New York	Welp's Breeding Farm, Bancroft, Iowa
Schaible, Louis D., Shiloh, New Jersey	West Line Breeders Association, 601 S. State St., Kent, Washington
Schildmeyer's Poultry Breeding Farm, 9961 S. Shaffer St., Orange, California	Wheelock, W. E., R. D. 5, Chambersburg, Pennsylvania
Schuyler Poultry Farms, LeRoy, New York	Willow Dale Poultry Farm, Holland, New York
Shaver Poultry Farm, R. D. 1, Box 400, Galt, Ontario, Canada	Wirtz Brothers, R. D. 1, Lebanon, New Jersey
Shenango Valley Hatchery, R. D. 4, Greenville, Pennsylvania	Wood Poultry Breeding Farm, Inc., 1475 S. Rebecca St., Pomona, California
Spruce Poultry Farm, R. D. 1, Bound Brook, New Jersey	Woodward, H. L., R. D. 2, Englishtown, New Jersey
Stafford Poultry Farms, Red Creek, New York	

